

WHAT IS CLAIMED IS:

1. A collapsible shipping pallet comprising:
 - a substantially planar deck;
 - a plurality of stringers removably attached to a bottom of the deck, at least one
 - 5 of the stringers having integral means for restraining pallet straps located proximate at least one end of the stringer; and,
 - means for attaching the plurality of stringers to the deck.
2. A collapsible shipping pallet as defined in claim 1 wherein the deck incorporates a second plurality of shouldered holes located in the deck and arranged
- 10 in linear spaced relation at predetermined stringer attachment locations and the means for attaching the plurality of stringers comprises:
 - a third plurality of resilient slotted pins extending from a top edge each stringer, each pin having a shank and an expanded head distal the top edge of the stringer; and
 - 15 a plurality of substantially cylindrical collars equal in number to the second plurality, each collar having a body inserted into a respective shouldered hole and a flange extending from the body engaging the shoulder of the respective hole, each collar further having a bore therethrough, the bore having a first diameter portion sized to receive the shank of a respective pin and a second diameter portion forming a
 - 20 step, the second diameter portion receiving the head of the pin with the step engaging the head to constrain the pin in the bore.
3. A collapsible shipping pallet as defined in claim 1 further comprising:
 - a fourth plurality of slats, each slat extending perpendicularly to the stringers and removably attached to a bottom edge of each stringer; and
 - 25 means for attaching the slats to the stringers.
4. A collapsible shipping pallet as defined in claim 3 wherein each slat has a plurality of shouldered holes and the means for attaching the slats to the stringers comprises:

a fourth plurality of resilient slotted pins, one pin depending from each stringer to engage a respective slat, each pin having a shank and an expanded head distal the stringer; and.

5 a plurality of substantially cylindrical collars, each collar having a body inserted into a respective shouldered hole in a slat and a flange extending from the body and engaging the shoulder of the respective hole, each collar further having a bore therethrough, the bore having a first diameter portion sized to receive the shank of a respective pin and a second diameter portion forming a step, the second diameter portion receiving the head of the pin with the step engaging the head to constrain the
10 pin in the bore.

5. A collapsible shipping pallet as defined in claim 1 wherein the restraining means comprises:

a jaw pair having a substantially triangular cross section, the jaws bifurcated between an apex and a base, the jaw pair received in a triangular cutout in an end
15 portion of the at least one stringer, the end portion further having a slot extending through a first side wall of the end portion to an apex of the cutout for the pallet strap to extend therethrough, the pallet strap further extending through the bifurcation in the jaws and, under tension, frictionally urging the jaws into the triangular cutout.

6. A collapsible shipping pallet as defined in claim 5 wherein the triangular
20 cutout abuts a restraint distal the apex, the restraint engaging the base of the jaw pair to prevent translation away from the cutout apex.

7. A collapsible shipping pallet as defined in claim 5 wherein a first element of the jaw pair incorporates a hinge tab received in a hinge cutout in a second element of the jaw pair to preclude separation of the jaw pair.

25 8. A collapsible shipping pallet as defined in claim 5 wherein the at least one stringer further includes an aperture in a second side wall perpendicular to the first side wall, the aperture proximate a base of the triangular cutout and further comprising a crank having a slotted shaft received through the aperture for engagement of the pallet strap for tensioning upon rotation of the crank.

9. A collapsible shipping pallet as defined in claim 3 wherein each stringer further incorporates fork lift cutouts on the bottom edge.
10. A collapsible shipping pallet as defined in claim 2 wherein the slot in each slotted pin originates at the head and extends through the shank of the pin to a web.
- 5 11. A collapsible shipping pallet as defined in claim 4 wherein each slat is received in a relief on the bottom surface of the stringer and the pin depends from a top surface of each respective slat relief in the stringer.
12. A collapsible shipping pallet as defined in claim 1 wherein the deck incorporates a plurality of key slots positioned in spaced relation to receiver slots on stackable containers to be carried on the deck and further comprises blade keys
10 received in the key slots for engagement of the receiver slots on the stackable containers.
13. A method for assembly and use of a collapsible shipping pallet comprising the steps of:
- 15 providing a substantially planar deck incorporating a plurality of shouldered holes located in the deck and arranged in linear spaced relation at predetermined stringer attachment locations;
- assembling stringers having resilient slotted pins extending from a top edge each stringer to a bottom of the deck, each pin having a shank and an expanded head
20 distal the top edge of the stringer to the deck by inserting the pins through the holes in the deck;
- fastening the stringers to the deck using cylindrical collars having a body inserted into a respective shouldered hole and a flange extending from the body engaging the shoulder of the respective hole, each collar further having a bore
25 therethrough, the bore having a first diameter portion sized to receive the shank of a respective pin and a second diameter portion forming a step, the second diameter portion receiving the head of the pin with the step engaging the head to constrain the pin in the bore, the head of the resilient pin deforming for receipt into the bore of the collar and expanding to engage the shoulder.

14. A method for assembly and use of a collapsible shipping pallet as defined in claim 13 further comprising the steps of:

assembling slats to the stringers wherein each slat extends perpendicularly to the stringers and is removably received in a relief on a bottom edge of each stringer,
5 each slat further has a plurality of shouldered holes receiving resilient slotted pins, one pin depending from a top surface of each respective slat relief in each stringer, each pin having a shank and an expanded head distal the top surface of the relief;

fastening the slats to the stringers using cylindrical collars having a body inserted into a respective shouldered hole and a flange extending from the body
10 engaging the shoulder of the respective hole, each collar further having a bore therethrough, the bore having a first diameter portion sized to receive the shank of a respective pin and a second diameter portion forming a step, the second diameter portion receiving the head of the pin with the step engaging the head to constrain the pin in the bore, the head of the resilient pin deforming for receipt into the bore of the
15 collar and expanding to engage the shoulder.

15. A method for assembly and use of a collapsible shipping pallet as defined in claim 13 further comprising the steps of:

inserting a jaw pair having a substantially triangular cross section, the jaws bifurcated between an apex and a base, into a triangular cutout in an end portion of at
20 least one stringer, the end portion further having a slot extending through a first side wall of the end portion to an apex of the cutout for a pallet strap to extend therethrough.

16. A method for assembly and use of a collapsible shipping pallet as defined in claim 14 further comprising the steps of:

25 loading material to be shipped onto the deck;
routing the pallet strap over the shipped material;
inserting a crank having a slotted shaft through an aperture in a second side wall perpendicular to the first side wall, the aperture proximate a base of the triangular cutout in the at least one stringer for engagement of the pallet strap;

inserting the strap through the slot in the stringer first side wall and through the bifurcation in the jaws into the slot on the crank; and,

5 tensioning the strap by rotating the crank, the strap under tension frictionally urging the jaws into the triangular cutout to lock the strap upon release of tension on the crank.

17. A method for assembly and use of a collapsible shipping pallet as defined in claim 13 wherein the deck incorporates a plurality of key slots and further comprising the steps of:

 inserting blade keys into the key slots; and

10 loading self stacking containers having receiving slots on a bottom surface thereof onto the deck with the blade keys being engaged by the receiving slots.